

Name _____ Date _____

ROOTS AND RADICALS

Simplify each radical expression, if it is a real number

1. $\sqrt{121} =$	2. $\sqrt[3]{64} =$	3. $\pm\sqrt{81} =$
4. $\sqrt{0.49} =$	5. $\sqrt{(8x+7)^8} =$	6. $\sqrt[3]{125a^{18}b^{12}} =$
7. $\sqrt[3]{(4x-7)^{24}} =$	8. $\sqrt{144} =$	9. $\sqrt{169a^{10}b^{16}} =$
10. $\sqrt[3]{-27} =$	11. $\sqrt{(6x-13)^{18}} =$	12. $\sqrt{-196} =$
13. $-\sqrt{225} =$	14. $\sqrt{2.89} =$	15. $\sqrt[3]{216} =$
16. $\sqrt{36a^{10}b^4} =$	17. $\sqrt[3]{8a^{27}b^{15}} =$	18. $\pm\sqrt{16} =$
19. $\sqrt{-64} =$	20. $\sqrt[3]{-125} =$	21. $\sqrt[3]{-27a^{21}b^9} =$
22. $\sqrt[3]{(3x+8)^{12}} =$	23. $-\sqrt{169} =$	24. $\sqrt{a^{14}b^4} =$

Find the real solutions, if any, for each equation

25. $6x^2 + 54 = 0$	26. $3x^3 + 40 = 16$
27. $3x^2 - 17 = 31$	28. $2x^3 - 21 = 33$